Patent Claims

1.	Differential pressure sensor for measuring the pres									
difference between a pressure acting on a high-p									essure	
	side	and	a	pressure	acting	on	a	low-pressure	side,	
	comprising:									

A measuring mechanism (1) having

a chamber (5) on the high-pressure side that is sealed by a first dividing membrane (2) and filled with a transfer medium, wherein the first dividing membrane (2) is loadable with a pressure acting on the high-pressure side;

15

5

a chamber (6) on the low-pressure side that is sealed by a second dividing membrane (3) and filled with a transfer medium, wherein the second dividing membrane (3) is loadable with a pressure acting on the low-pressure side;

20

a pressure-sensitive element (4) which separates the chamber (5) on the high-pressure side from the chamber (6) on the low-pressure side; and

25

a throttle (7) for damping overload pulses; characterized in that

30

the throttle (7) is arranged between the pressuresensitive element (4) and the second dividing membrane (3).

- 2.
 - Differential pressure sensor as claimed in claim 1, wherein the transfer medium is a hydraulic liquid, especially a silicone oil.
 - Differential pressure sensor as claimed in claim 1 or
 wherein the pressure-sensitive element (4) has a

measuring membrane, especially a piezoresistive silicon chip with a measuring membrane.

- 4. Differential pressure sensor as claimed in one of the preceding claims, wherein the throttle (7) has a sintered body.
- 5. Differential pressure sensor as claimed in claim 4, wherein the sintered body is a metallic or a ceramic sintered body.
 - 6. Differential pressure sensor as claimed in one of the preceding claims, wherein the throttle has a porous structure.
 - 7. Differential pressure sensor as claimed in claim 6, wherein the porous structure has an effective flow pore diameter of not less than 4 μm and not more than 28 μm, preferably between 8 μm and 16 μm.

15

20

25

- 8. Differential pressure sensor as claimed in claim 6 or 7, wherein the porous structure has a porosity between 15 vol.% and 50 vol.%, preferably between 25 vol% and 35 vol%.
- 9. Differential pressure sensor as claimed in one of the claims 4 to 8, wherein the sintered body has an essentially cylindrical form and the length of the sintered body in the axial direction is at least twice as large as the diameter.